Remarks/Arguments:

By this Amendment, Applicants have amended claims 1, 14, and 16. Claims 1-16 are pending.

Examiner Interview

Applicants acknowledge with appreciation the courtesies extended to Applicants' counsel, Daniel N. Calder, in a telephone interview with Examiner Mills on Monday, November 1, 2004. Claim 1 was the primary focus of the telephone interview and while no agreement was reached, Examiner Mills did provide guidance resulting in this amendment of the claims.

RCE

Concurrent with the filing of this Amendment, Applicants are filing an RCE.

Claim Rejections Under Section 112

Claim 16 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for reasons set forth in numbered paragraph 2 (page 2) of the Office Action. Following the Examiners' guidance, Applicants have amended claim 16 to overcome the basis for the Section 112, second paragraph, rejection. It is Applicants position that all pending claims are in full compliance with Section 112.

Claim Rejections Under Section 102

Claims 1, 2, and 12-16 stand rejected under 35 U.S.C. §102(e) as being anticipated by Ayerst. By this Amendment, Applicants respectfully traverse the Section 102(e) rejection.

Claims 1 and 14 are independent claims. Dependent on claim 1 are claims 2-13 and 15-16.

Turning first to independent claim 1, it is directed to a method of transmitting a packet data to which a sync pattern is added before transmission. The method defined by claim 1 includes the following steps:

- generating a fixed pattern comprising 'm' words ('m' is an integer greater than 0);

- generating **variable, non-random patterns of predetermined bit structure**, each pattern comprising 'n' words ('n' is an integer greater than 1;

- generating a sync pattern comprising 'q' words ('q' = m + n) formed by combining the fixed pattern and the variable pattern;

- controlling the step of generating a sync pattern for making a bit structure included in at least two consecutive packets include different types of variable patterns.

It is Applicants position that the method of transmitting a packet data as defined in claim 1 is patentably distinguished from the Ayerst Patent at least based on the requirement of generating variable, non-random patterns of predetermined bit structure (hereinafter generally referred to as the "Variable, Non-Random Patterns Feature" of Applicants' claimed invention). In other words, the Ayerst Patent does not teach or suggest the Variable, Non-Random Patterns Feature of Applicants' claimed invention.

In general, Figure 1 of the Ayerst Patent describes a fixed system receiver 107 which operates in a synchronization mode which is one of a synchronous mode and asynchronous mode. A system controller 102 transmits a response command which includes a preamble indicator corresponding to the synchronization mode of the fixed system receiver 107. A select call radio 106 receives and decodes the preamble indicator and generates a response message data unit 312. The

Appln. No.:   09/646,665   MAT-8014US
Amendment Dated: November 10, 2004
Reply to Office Action of: June 15, 2004

synchronous header data packet 660 (Figure 6 and 7) is preceded by a synchronizing packet 650 when the preamble indicator indicates the asynchronous mode and is not preceded by the synchronizing packet 650 when the preamble indicator indicates the synchronous mode.

As Applicants have pointed out in their Amendment dated April 14, 2004 and in the telephone interview held with Examiner Mills, the method and apparatus for optimizing receiver synchronization in a radio communication system as disclosed in the Ayerst Patent, relies on a preamble packet composed of a pseudo random pattern ending with consecutive 1's. This is in sharp contrast to Applicants' claimed invention. The variable pattern of Applicants' claimed invention is <u>not a random pattern</u>, but is formed by selecting among plural data patterns that are <u>predetermined</u>. To make this difference more clear, Applicants have amended claim 1 by specifically defining a step of generating variable, <u>non-random</u> patterns of predetermined bit structure (i.e., the Variable Non-Random Patterns Feature). As a result of Applicants' Variable Non-Random Patterns Feature a sync pattern with very high reliability results. Moreover, with Applicants' claimed invention, there is no need for complex search tree for generating the random pattern.

Applicants' description of the Ayerst method and apparatus is further supported by the Examiner's very own remarks at page 10 of the Office Action which states as follows:

> Ayerst discloses generating a pseudo <u>random</u> pattern, which is planned to be <u>random</u> comprising 128-bits or 16 bytes (see column 17, lines 28-30). (Emphasis Added)

Thus the Examiner too recognizes that the Ayerst Patent relates to a <u>random</u> pattern. But Applicants have differentiated their invention from the Ayerst method and apparatus by specifying the step of generating variable, <u>non-random</u> patterns of predetermined bit structure. In view of this difference between Applicants' method of transmitting as defined in claim 1 and the teaching of the Ayerst Patent, Applicants request that the Section 102(e) rejection directed to claim 1 and the claims dependent thereon be withdrawn.

Claim 14 is an independent claim directed to a packet data transmitting apparatus. Applicants have amended claim 14 so that it too includes the Variable, Non-Random Patterns Feature of Applicants' claimed invention. Thus, for the same reasons as set forth above, claim 14 is patentably distinguished from the Ayerst Patent. Based on the foregoing discussion, Applicants request that the Section 102(e) rejection be withdrawn.

Claim Rejections Under Section 103

Claims 3-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ayerst, and claims 8-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ayerst in view of Lawrence. Based on this Amendment, Applicants respectfully traverse the Section 103(a) rejections.

Claims 3-6 and 8-11 are dependent on claim 1 and therefore include the Variable, Non-Random Patterns Feature of Applicants' claimed invention. On that basis, these claims are patentably distinguished from the Ayerst Patent. But it is Applicants' position that the Lawrence Patent does not rectify the deficiencies heretofore discussed with respect to the Ayerst Patent.

The Lawrence Patent in general relates to a system and method for maintaining timing synchronization in a digital video network, in conjunction with a digital video and data delivery system. According to the Lawrence Patent, the described system makes possible the delivery of digital video content, bi-directional data services and telephone service to an end user over a communications channel. More specifically, the Lawrence Patent has been cited in the Office Action with respect to the customer premises configuration shown in Figure 16 where digital video and data enters customer premises 1300 from a central office 400 via communication channel 16.

But nowhere in the Lawrence Patent is there any teaching or suggestion of a method or apparatus including the Variable, Non-Random Patterns Feature of

Applicants' claimed invention. Lacking this feature, the Lawrence Patent either alone or in combination of the Ayerst Patent, does not teach or suggest the method of transmitting a packet data as defined in Applicants' claim 1 to which claims 3-6 and 8-11 depend.

Because the above-noted references do not teach at least the Variable Non-Random Patterns Feature of Applicants' claimed invention, Applicants request that the Section 103(a) rejections be withdrawn.

Allowable Subject Matter

Applicants acknowledge with appreciation the Examiner's finding that claim 7 includes allowable subject matter and would be allowed if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants submit, however, that there is no need to amend claim 7 since it is dependent on claim 1 which is itself in condition for allowance.

In view of the foregoing remarks and amendments, Applicants respectfully submit that claims 1-16 are in condition for allowance. Reconsideration and allowance of all pending claims are respectfully requested.

Respectfully submitted,

Lawrence E. Ashery, Reg. No. 34,515
Daniel N. Calder, Reg. 27,424
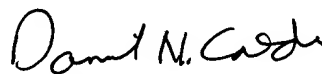Attorneys for Applicants

DNC/ds

Dated: November 10, 2004

P.O. Box 980
Valley Forge, PA 19482-0980
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

November 10, 2004

DAS_I:\MAT\8014US\AMEND_02.DOC